

FORM PTO-1449

(REV. 7-90)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

120115.401C2

APPLICATION NO.

10/625,972

APPLICANTS

Phillip J. Tarr et al.

FILING DATE

July 23, 2003

GROUP ART UNIT

1645

INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

JUL 19 2004

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
SD	AA	3,975,517	08/17/76	Wilson	424	87	
	AB	4,443,549	04/17/84	Sadowski	436	548	
	AC	4,454,116	06/12/84	Brinton	424	92	
	AD	4,472,302	09/18/84	Karkhanis	260	112 R	
	AE	4,652,448	03/24/87	Sadowski	424	87	
	AF	4,702,911	10/27/87	McMichael	424	92	
	AG	4,725,435	02/16/88	Brinton, Jr. et al.	424	92	
	AH	4,736,017	04/05/88	O'Hanley et al.	530	350	
	AI	4,795,803	01/03/89	Lindberg et al.	530	324	
SD	AJ	5,066,596	11/19/91	Manning et al.	435	252.33	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
SD	AK	WO 92/11354	07/09/92	WIPO		
SD	AL	WO 94/19482	09/01/94	WIPO		

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

SD	AM	Acres, S. et al., "Immunization of Calves Against Enterotoxigenic Colibacillosis by Vaccinating Dams with Purified K99 Antigen and Whole Cell Bacterins," <i>Infect Immun.</i> 25(1):121-6, July 1979.
SD	AN	Beebakhee, G. et al., "Cloning and Nucleotide Sequence of the eae Gene Homologue from Enterohemorrhagic <i>Escherichia Coli</i> Serotype 0157:H7," <i>FEMS Microbiol. Lett.</i> 91:63-68, 1992.
SD	AO	Bilge, S. et al., "Molecular Characterization of a Fimbrial Adhesin, F1845, Mediating Diffuse Adherence of Diarrhea-associated <i>Escherichia coli</i> to HEp-2 cells," <i>J Bacteriol.</i> 171(8):4281-9, August 1989.

EXAMINER

SD

DATE CONSIDERED

October 04

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<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
SD	BA	5,079,165	01/07/92	Clements et al.	435	252.8	
	BB	5,137,721	08/11/92	Dallas	424	93 A	
	BC	5,182,109	10/26/93	Tamura et al.	424	92	
	BD	5,208,024	05/04/93	Van Den Bosch	424	92	
	BE	5,286,484	02/15/94	Rodriguez et al.	435	252.33	
	BF	5,475,098	12/12/95	Hall et al.	536	23.7	
	BG	5,776,751	07/07/98	Boulton et al.	435	194	
	BH	5,834,187	11/10/98	Green et al.	435	6	
	BI	5,840,518	11/24/98	Morishita et al.	435	69.1	
<b>FOREIGN PATENT DOCUMENTS</b>							
	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION			
				YES	NO		
	BJ						
<b>OTHER PRIOR ART</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
SD	BK	Bokete, T, et la., "Shiga-like Toxin-producing <i>Escherichia coli</i> in Seattle Children: a Prospective Study," <i>Gastroenterology</i> 105(6):1724-31, December 1993.					
	BL	Cravioto, A. et al., "Association of <i>Escherichia coli</i> HEp-2 Adherence Patterns with Type and Duration of Diarrhea," <i>Lancet</i> 337(8736):262-4, February 2, 1991.					
	BM	Donnenberg, M. et al., "Enteropathogenic <i>Escherichia coli</i> ," <i>Infect Immun.</i> 60(10):3953-61, October 1992.					
	BN	Donnenberg, M. et al., "The Role of the eae Gene of Enterohemorrhagic <i>Escherichia coli</i> in Intimate Attachment in Vitro and in a Porcine Model," <i>J Clin Invest.</i> 92(3):1418-24, September 1993.					
	BO	Duchet-Suchaux, M. et al., "Passive Protection of Suckling Infant Mice Against F41-Positive Enterotoxigenic <i>Escherichia coli</i> Strains by Intravenous Inoculation of the Dams with Monoclonal Antibodies Against F41," <i>Infect Immun.</i> 60(7):2828-34, July 1992.					
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CA						
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION		
				YES	NO	
CB						
<b>OTHER PRIOR ART</b> (Including Author, Title, Date, Pertinent Pages, Etc.)						
SD	CC	Dytoc, M. et al., "Multiple Determinants of Verotoxin-producing <i>Escherichia coli</i> O157:H7 Attachment-effacement," <i>Infect Immun.</i> 61(8):3382-91, August 1993.				
	CD	Evans, G. et al., "High Efficiency Vectors for Cosmid Microcloning and Genomic Analysis," <i>Gene</i> 79(1):9-20, June 30, 1989.				
	CE	Francis, D. et al., "Evaluation of a Live Avirulent <i>Escherichia coli</i> Vaccine for K88+, LT+ Enterotoxigenic Colibacillosis in Weaned Pigs," <i>Am J Vet Res.</i> 52(7):1051-5, July 1991.				
	CF	Fratamico, P. et al., "Studies on <i>Escherichia coli</i> Serotype O157:H7 Strains Containing a 60-MDa Plasmid and on 60-MDa Plasmid-cured Derivatives," <i>J Med Microbiol.</i> 39(5):371-81, November 1993.				
	CG	Griffin, P. et al., "Illnesses Associated with <i>Escherichia coli</i> O157:H7 Infections. A Broad Clinical Spectrum," <i>Ann Intern Med.</i> 109(9):705-12, November 1, 198.				
	CH	Ikemori, Y. et al., "Protection of Neonatal Calves Against Fatal Enteric Colibacillosis by Administration of Egg Yolk Powder from Hens Immunized with K99-piliated Enterotoxigenic <i>Escherichia coli</i> ," <i>Am J Vet Res.</i> 53(11):2005-8, November 1992.				
	CI	Isaacson, R. et al., "Immunization of Suckling Pigs Against Enterotoxigenic <i>Escherichia coli</i> -induced Diarrheal Disease by Vaccinating Dams with Purified K99 or 987P Pili: Antibody Production in Response to Vaccination," <i>Infect Immun.</i> 29(2):824-6, August 1980.				
	CJ	Junkins, A. et al., "Comparison of Adherence Properties of <i>Escherichia coli</i> O157:H7 and a 60-megadalton Plasmid-cured Derivative," <i>Curr. Microbiol.</i> 19:21-27, 1989.				
SD	CK	Karch, H. et al., "A Plasmid of Enterohemorrhagic <i>Escherichia coli</i> O157:H7 is Required for Expression of a New Fimbrial Antigen and for Adhesion to Epithelial Cells," <i>Infect Immun.</i> 55(2):455-61, February 1987.				
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DB			

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DC	Kimura, A. et al., "Bordetella Pertussis Filamentous Hemagglutinin: Evaluation as a Protective Antigen and Colonization Factor in a Mouse Respiratory Infection Model," <i>Infect Immun.</i> 58(1):7-16, January 1990.
DD	Louie, M. et al., "Expression and Characterization of the eae, A Gene Product of <i>Escherichia coli</i> Serotype O157:H7," <i>Infect Immun.</i> 61(10):4085-92, October 1993.
DE	Moon, H. et al., "Mechanisms of Association of Enteropathogenic <i>Escherichia coli</i> with Intestinal Epithelium," <i>Am J Clin Nutr.</i> 32(1):119-27, January 1979.
DF	Morgan, R. et al., "Immunization of Suckling Pigs Against Enterotoxigenic <i>Escherichia coli</i> -induced Diarrheal Disease by Vaccinating Dams with Purified 987 or K99 Pili: Protection Correlates with Pilus Homology of Vaccine and Challenge," <i>Infect Immun.</i> 22(3):771-7, December 1978.
DG	Morris, J. et al., "Passive Protection of lambs Against Enteropathogenic <i>Escherichia coli</i> : Role of Antibodies in Serum and Colostrum of Dams Vaccinated with K99 Antigen," <i>J Med Microbiol.</i> 13(2):265-71, May 1980.
DH	Pecha, B. et al. "Gal-Gal Pili Vaccines Prevent Pyelonephritis by Piliated <i>Escherichia coli</i> in a Murine Model. Single-component Gal-Gal Pili Vaccines Prevent Pyelonephritis by Homologous and Heterologous piliated <i>E. coli</i> Strains," <i>J Clin Invest.</i> 83(6):2102-8, June 1989.
DI	Ratnam, S. et al., "Characterization of <i>Escherichia coli</i> Serotype O157:H7," <i>J Clin Microbiol.</i> 26(10):2006-12, October 1988.
DJ	Runnels, P. et al., "F41 Pili as Protective Antigens of Enterotoxigenic <i>Escherichia coli</i> that Produce F41, K99, or Both Pilus Antigens," <i>Infect Immun.</i> 55(3):555-8, March 1987.

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<b>FOREIGN PATENT DOCUMENTS</b>							
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					YES	NO	
	EB						
<b>OTHER PRIOR ART</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
SD	EC	Sherman, P. et al., "Outer Membranes are Competitive Inhibitors of <i>Escherichia coli</i> O157:H7 Adherence to Epithelial Cells," <i>Infect Immun.</i> 59(3):890-9, March 1991.					
	ED	Sherman, P. et al., "Adherence of Vero Cytotoxin-producing <i>Escherichia coli</i> of Serotype O157:H7 to Human Epithelial Cells in Tissue Culture: Role of Outer Membranes as Bacterial Adhesions," <i>J Med Microbiol.</i> 26(1):11-7, May 1988.					
	EE	Sherman, P. et al., "Attaching and Effacing Adherence of Vero Cytotoxin-producing <i>Escherichia coli</i> to Rabbit Intestinal Epithelium in Vivo," <i>Infect Immun.</i> 56(4):756-61, April 1988.					
	EF	Sojka, W. et al., "Passive Protection of Lambs Against Experimental Enteric Colibacillosis by Colostral Transfer of Antibodies from K99-vaccinated Ewes," <i>J Med Microbiol.</i> 11(4):493-9, November 1978.					
	EG	Tarr, P. et al., "The increasing Incidence of the Hemolytic-uremic Syndrome in King County, Washington: Lack of Evidence for Ascertainment Bias," <i>Am J Epidemiol.</i> 129(3):582-6, March 1989.					
	EH	Tarr, P. et al., "Genotypic Variation in Pathogenic <i>Escherichia coli</i> O157:H7 Isolated from Patients in Washington, 1984-1987," <i>J Infect Dis.</i> 159(2):344-7, February 1989.					
	EI	Tarr, P. et al., " <i>Escherichia coli</i> O157:H7 and the Hemolytic Uremic Syndrome: Importance of Early Cultures in Establishing the Etiology," <i>J Infect Dis.</i> 162(2):553-6, August 1990.					
	EJ	Taylor, R. et al., "Broad-host-range Vectors for Delivery of Tnp <sub>phoA</sub> : Use in Genetic Analysis of Secreted Virulence Determinants of <i>Vibrio Cholerae</i> ," <i>J Bacteriol.</i> 171(4):1870-8, April 1989.					
SD	EK	Taylor, R. et al., "Use of <i>phoA</i> Gene Fusions to Identify a Pilus Colonization Factor Coordinately Regulated with Cholera Toxin," <i>Proc Natl Acad Sci U S A.</i> 84(9):2833-7, May 1987.					
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